

Title (en)
AN ARRANGEMENT FOR RADIAL FANS

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Application
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Abstract (en)
[origin: US4549848A] PCT No. PCT/SE83/00012 Sec. 371 Date Sep. 21, 1983 Sec. 102(e) Date Sep. 21, 1983 PCT Filed Jan. 19, 1983 PCT Pub. No. WO83/02646 PCT Pub. Date Aug., 1983. A radial fan comprises a spiral-shaped fan housing (1) and a drum-shaped wheel (9) which rotates in the direction in which the spiral increases and has an opening (15) facing towards an intake (16) in the end wall (5) of the housing. The area of the duct (18) formed by the housing and the periphery of the wheel increases continuously from a point where the duct cross-section is smallest up to an outlet part (21) where the cross-section is greatest and where the area is at least equal to the radius (R) of the wheel times its length (L). The intake is made eccentric by a guide vane (23) installed at the opening and extending near the inside (17) of the wheel by an edge part (26) located after the said point, cutting off the cross-section of the duct outwardly of the outer end (13) of the wheel. The rear face of the guide vane and the end wall (5) form an inwardly facing flow surface (33) which extends over approximately half the periphery of the wheel. The wheel length (L) is approximately two thirds or more of the internal axial dimension (H) of the housing, and is approximately equal to the radius (R) of the wheel.

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